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PETITION FEE Under 37 CFR 1.17(f), (g) & (h) TRANSMITTAL (Fees are subject to annual revision) Send completed form to: Commissioner for Patents P.O. Box 1450, Alexandria, VA 22313-1450	Application Number	10/649,705
	Filing Date	August 28, 2003
	First Named Inventor	Masao SUZUKI
	Art Unit	
	Examiner Name	
	Attorney Docket Number	500.43093X00

Enclosed is a petition filed under 37 CFR §1.102(d) that requires a processing fee (37 CFR 1.17(f), (g), or (h)). Payment of \$ 130.00 is enclosed.

This form should be included with the above-mentioned petition and faxed or mailed to the Office using the appropriate Mail Stop (e.g., Mail Stop Petition), if applicable. For transmittal of processing fees under 37 CFR 1.17(i), see form PTO/SB/17i.


Payment of Fees (small entity amounts are NOT available for the petition (fees))

- ☒ The Commissioner is hereby authorized to charge the following fees to Deposit Account No. 50-1417:
- ☐ petition fee under 37 CFR 1.17(f), (g) or (h) ☒ any deficiency of fees and credit of any overpayments
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Petition Fees under 37 CFR 1.17(f): For petitions filed under: § 1.53(e) - to accord a filing date. § 1.57(a) - to according a filing date. § 1.182 - for decision on a question not specifically provided for. § 1.183 - to suspend the rules. § 1.378(e) for reconsideration of decision on petition refusing to accept delayed payment of maintenance fee in an expired patent. § 1.741(b) - to accord a filing date to an application under §1.740 for extension of a patent term.	Fee \$400	Fee Code 1462
Petition Fees under 37 CFR 1.17(g): For petitions filed under: §1.12 - for access to an assignment record. §1.14 - for access to an application. §1.47 - for filing by other than all the inventors or a person not the inventor. §1.59 - for expungement of information. §1.103(a) - to suspend action in an application. §1.136(b) - for review of a request for extension of time when the provisions of section 1.136(a) are not available. §1.295 - for review of refusal to publish a statutory invention registration. §1.296 - to withdraw a request for publication of a statutory invention registration filed on or after the date the notice of intent to publish issued. §1.377 - for review of decision refusing to accept and record payment of a maintenance fee filed prior to expiration of a patent. §1.550(c) - for patent owner requests for extension of time in <u>ex parte</u> reexamination proceedings. §1.956 - for patent owner requests for extension of time in <u>inter partes</u> reexamination proceedings. § 5.12 - for expedited handling of a foreign filing license. § 5.15 - for changing the scope of a license. § 5.25 - for retroactive license.	Fee \$200	Fee code 1463
Petition Fees under 37 CFR 1.17(h): For petitions filed under: §1.19(g) - to request documents in a form other than that provided in this part. §1.84 - for accepting color drawings or photographs. §1.91 - for entry of a model or exhibit. §1.102(d) - to make an application special. §1.138(c) - to expressly abandon an application to avoid publication. §1.313 - to withdraw an application from issue. §1.314 - to defer issuance of a patent.	Fee \$130	Fee Code 1464

Name (Print/Type)	Carl I. Brundidge	Registration No. (Attorney/Agent)	29,621
Signature		Date	April 22, 2005

This collection of information is required by 37 CFR 1.114. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.



500.43093X00

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicants: Masao SUZUKI

Serial No.: 10/649,705

Filed: August 28, 2003

For: SYSTEM AND METHOD FOR MANAGING STORAGE DEVICE,
AND PROGRAM FOR THE SAME

PETITION TO MAKE SPECIAL
UNDER 37 CFR §1.102(MPEP §708.02)

MS Petition

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

April 22, 2005

Sir:

Applicants hereby petition the Commissioner to make the above-identified application special in accordance with 37 CFR §1.102(d). Pursuant to MPEP §708.02(VIII), Applicants state the following.

(A) This Petition is accompanied by the fee set forth in 37 CFR §1.17(h).

The Commissioner is hereby authorized to charge any additional payment due, or to credit any overpayment, to Deposit Account No. 50-1417.

(B) All claims are directed to a single invention.

If the Office determines that all claims are not directed to a single invention, Applicant will make an election without traverse as a prerequisite to the grant of special status.

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(C) A pre-examination search has been conducted.

The search was directed towards a storage system. In particular, the search was directed towards a method for managing storage devices by using a computer, a method of operational support for storage devices by using a computer and a program for managing storage devices wherein the program is executed by a computer.

According to the method for managing storage devices, the computer reads information about an operational rule for the storage devices accommodated in a memory device and information about an operation procedure of the storage devices associated with the operation rule for the storage devices, receives an instruction to select the information about the operation rule for the storage devices from a user, and sends the storage devices an instruction to execute the operation procedure of the storage devices associated with information about the operation rule based on the operation rule received.

Alternatively, in the method of managing storage devices the computer can, for example, send the storage devices an instruction to execute the procedure of the storage devices based on the operation rule and the operation procedure of the storage devices which have been read, obtain information from the storage devices, and based on the information obtained from the storage devices, change the information about the storage devices.

The method of operational support for storage devices is similar to the method for managing storage devices as described above with the exception that

the computer upon receipt of an instruction to select the information about the operation rule for the storage devices from a user, and based on information about the operation rule received, displayed on a screen, information regarding states before and after the operation procedure of the storage devices associated with the information about the operation rule is applied to the storage devices.

Further, according to the present invention, the program for managing storage devices operates similar to the above described method for managing storage devices and the method of operational support for storage devices.

The search of the above features was conducted in the following areas:

<u>Class</u>	<u>Subclasses</u>	<u>Description</u>
709/		ELECTRICAL COMPUTERS AND DIGITAL PROCESSING SYSTEMS: MULTICOMPUTER DATA TRANSFERRING
	224	. Computer network monitoring
	226	. Network resource allocating
711/		ELECTRICAL COMPUTERS AND DIGITAL PROCESSING SYSTEMS: MEMORY
	111	.. Accessing dynamic storage device
	154	. Control technique
	162	... Backup
	170	. Memory configuring

Additionally, a computer database search was conducted on the USPTO systems EAST and WEST.

(D) The following is a list of the references deemed most closely related to the subject matter encompassed by the claims:

<u>U.S. Patent Number</u>	<u>Inventors</u>
6,801,992 B2	Gajjar et al
<u>U.S. Patent Application Publication No.</u>	<u>Inventor(s)</u>
2003/0061491 A1	Jaskiewicz et al
2003/0115204 A1	Greenblatt et al
2003/0135609 A1	Carlson et al
2004/0158676 A1	Kasmirsky et al
2004/0177228 A1	Leonhardt et al
2004/0243699 A1	Koclanes et al

A copy of each of these references (as well as other references uncovered during the search) is enclosed in an accompanying IDS.

(E) It is submitted that the present invention is patentable over the references for the following reasons.

It is submitted that the cited references, whether considered alone or in combination, fail to teach or suggest the invention as claimed. In particular, the cited references, at a minimum, fail to teach or suggest a first feature of the present invention as recited in the claims wherein the computer reads information about an operation rule for the storage devices accommodated previously in a memory device and information about an operation procedure of the storage devices associated with the operation rule for the storage devices, a second feature of the present invention as recited in the claims wherein the computer receives an instruction to select the information about the operation rule for the

storage devices from a user, a third feature of the present invention as recited in the claims wherein the computer sends the storage devices an instruction to execute the operation procedure of the storage devices associated with information about the operation rule based on the operation rule received, a fourth feature of the present invention as recited in the claims wherein the computer sends the storage devices an instruction to execute the operation procedure of the storage devices based on the operation rule and the operation procedure of the storage devices, which have been read, fifth feature of the present invention as recited in the claims wherein the computer obtains information from the storage devices, and based on the information obtained from the storage devices, changes the information about the storage devices and a sixth feature of the present invention as recited in the claims wherein the computer, based on information about the operation rule received, displays information regarding states before and after the operation procedure of the storage devices associated with the information about the operation rule is applied to the storage devices.

All of the independent claims recite at least the first feature of the present invention and different ones of the other independent claims recite selected ones of the second, third, fourth, fifth and sixth features of the present invention. In particular, independent claim 1 recites the first, second and third features of the present invention, independent claim 2 recites the first, fourth and fifth features of the present invention, independent claim 4 recites the first, second, fifth and sixth features of the present invention, independent claim 5 recites the first, fifth and

sixth features of the present invention, independent claim 7 recites the first, second and third features of the present invention and independent claim 8 recites the first, fourth and fifth features of the present invention.

The references considered most closely related to the claimed invention are briefly discussed below:

Gajjar (U.S. Patent No. 6,801,992) provides for a system and method for policy based storage provisioning and management. Discussed are policies that may be specified for taking actions if certain conditions occur. For example, a policy for handling changes to a storage profile may specify an action to automatically migrate existing storage allocated to storage consumers using the storage profile to new storage that satisfies the new storage profile requirements. A virtual storage exchange (VSX) 100 may monitor the storage profile and when changes are detected, VSX 100 may automatically migrate existing storage to new storage that meets the profile. If any constraints of storage heuristics are violated or changed, VSX 100 may take corrective action that is specified in the storage profile. VSX may facilitate the process of storage provisioning by allowing a user to specify policies based upon different criteria, such as data access patterns of applications, availability of storage in the SAN, etc. (see column 4, lines 45-50, column 7 lines 65-67, and column 8 lines 1-8 and 10-13).

Gajjar fails to teach or suggest, whether taken individually or in combination with any of the other references of record, the first, second, third, fourth, fifth and sixth features of the present invention as recited in the claims.

Jaskiewicz (U.S. Patent Application Publication No. 2003/0061491) provides for a system and method for the allocation of network. Discussed is a method enabling a system administrator to set a network policy for storage allocation. Network storage locations may be dynamically identified by attributing and matched with storage locations with processes and devices requiring network storage with certain attributes. An administrator may specify minimum attributes for all network storages, and implementation of network storage policy may be completely automated (see paragraph 14).

Jaskiewicz fails to teach or suggest, whether taken individually or in combination with any of the other references of record, the first, second, third, fourth, fifth and sixth features of the present invention as recited in the claims.

Greenblatt (U.S. Patent Application Publication No. 2003/0115204) provides for a structure of policy information for storage, network and data management applications. Disclosed is a method for policies that may be used in various management applications, based on the rules defined for either conditions on monitored events, or attributes that are more static in nature. A server may include storage and data management server 104 and server policy database 120 which may be accessible to storage and data management server 104. Server policy database 120 appears to allow conditions to be monitored and actions to be performed by storage and data management server 104 based on monitored conditions (see paragraphs 21 and 22).

Greenblatt fails to teach or suggest, whether taken individually or in combination with any of the other references of record, the first, second, third, fourth, fifth and sixth features of the present invention as recited in the claims.

Carlson (U.S. Patent Application Publication No. 2003/0135609) provides for a method, system, and program for determining a modification of a system resource configuration. Discussed is a method for specifying a service configuration policy. Upon specification, the component architecture implementation may automatically configure all SAN components to implement the requested allocation at the specified configuration. The request allocation of the configuration may be implemented by calling element configuration policies to handle the resource configuration (see paragraph 44).

Carlson fails to teach or suggest, whether taken individually or in combination with any of the other references of record, the first, second, third, fourth, fifth and sixth features of the present invention as recited in the claims.

Kasmirsky (U.S. Patent Application Publication No. 2004/0158676) provides for content-based storage management. Disclosed is rule engine 20, which may receive at least one characteristic of data, such as in the form of metadata. Rule engine 20 may compare the metadata with at least one rule, which may be a rule specified by a human user, or an automatically generated predefined business rule. Rule engine 20 may determine the type of storage options which should be selected for the particular captured data, and also the term of storage. Rule engine 20 may perform an action according to a rule and/or event, in which the event may trigger automatic application of the rule. A

storage manager 86 may store, migrate or delete data according to an occurring event. Even though this reference does not appear to show storage management based on changes in the storage environment, it does appear to show a method of executing storage management policy rules based on the storage content (see figures 1 and 3 and paragraphs 31, 32, 33, and 52).

Kasmirsky fails to teach or suggest, whether taken individually or in combination with any of the other references of record, the first, second, third, fourth, fifth and sixth features of the present invention as recited in the claims.

Leonhardt (U.S. Patent Application Publication No. 2004/0177228) provides for an outboard data storage management system and method. Disclosed is an outboard manager 10 that may decide where a data set may reside when it is initially created. A user may initially designate data set attributes and policies for selected virtual data storage, and then outboard manager 10 may automatically assign a physical data storage device or combination based on user identified attributes and data storage rules. Even though this reference does not appear to discuss storage management based on environment changes, it does appear to show a method of automatically setting storage attributes based on user defined policy rules (see figure 1 and paragraph 47).

Leonhardt fails to teach or suggest, whether taken individually or in combination with any of the other references of record, the first, second, third, fourth, fifth and sixth features of the present invention as recited in the claims.

Koclanes (U.S. Patent Application Publication No. 2004/0243699)

provides for a policy based management of storage resources. Discussed is a policy-based management of storage resources, which appears to automatically incorporate meeting a set of service level objectives (SLOs) driven by policy rules. The definition of policy rules appears to be user driven. A provisioning for an application may be conducted according to the rules, and metrics may then be used to proactively measure against SLOs. Policy-based management of storage resources may be met by automatically configuring the system in various respects. As data center environment evolves, due to changes in data request load or availability, storage devices may be automatically reconfigured to meet capacity, bandwidth, and connectivity demands. Based on the status of storage environment, actions to meet the SLOs may be analyzed and recommended (see figure 7 and paragraphs 37, 38, and 41).

Koclanes fails to teach or suggest, whether taken individually or in combination with any of the other references of record, the first, second, third, fourth, fifth and sixth features of the present invention as recited in the claims.

Therefore, since the references fail to teach or suggest the first, second, third, fourth, fifth and sixth features of the present invention as recited in the claims, it is submitted that all of the claims are patentable over the cited references whether taken individually or in combination with each other.

(F) Conclusion

Applicant has conducted what it believes to be a reasonable search, but makes no representation that "better" or more relevant prior art does not exist.

The United States Patent and Trademark Office is urged to conduct its own complete search of the prior art, and to thoroughly examine this application in view of the prior art cited herein and any other prior art that the United States Patent and Trademark Office may locate in its own independent search. Further, while Applicant has identified in good faith certain portions of each of the references listed herein in order to provide the requisite detailed discussion of how the claimed subject matter is patentable over the references, the United States Patent and Trademark Office should not limit its review to the identified portions but rather, is urged to review and consider the entirety of each reference, and not to rely solely on the identified portions when examining this application.

In view of the foregoing, Applicant requests that this Petition to Make Special be granted and that the application undergo the accelerated examination procedure set forth in MPEP 708.02 VIII.

(G) Fee (37 C.F.R. 1.17(i))

The fee required by 37 C.F.R. § 1.17(i) is to be paid by:

☒ the Credit Card Payment Form (attached) for \$130.00.

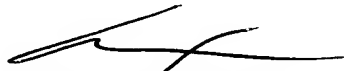
☐ charging Account _____ the sum of \$130.00.

A duplicate of this petition is attached.

Please charge any shortage in fees due in connection with the filing of this paper, including extension of time fees, or credit any overpayment of fees, to the deposit account of MATTINGLY, STANGER, MALUR & BRUNDIDGE, P.C., Deposit Account No. 50-1417 (500.43093X00).

Respectfully submitted,

MATTINGLY, STANGER, MALUR & BRUNDIDGE, P.C.



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CIB/jdc
Enclosures
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